HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Renville County, North Dakota

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed. The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (USDA, 1999) and " Keys to Soil Taxonomy"' (USDA, 1998) and in the "Soil Survey Manual" (USDA, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units in the Hydric Soil Interpretations table meet the definition of hydric soils and, in addition, have at east one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1996).

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

These map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Renville County, North Dakota

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Ar:							
ARVESON LOAM	ARVESON	Yes	depression	2B3	YES	NO	NO
	HECLA	No	---	---	---	---	---
	WYNDMERE	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
AvC:							
ARVILLA SANDY LOAM, 6 TO 9 PERCENT SLOPES	ARVILLA	No	---	---	---	---	---
	DIVIDE	No	---	---	---	---	---
	RENSHAW	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
AwA:							
ARVILLA-SIOUX SANDY LOAMS, 1 TO 3 PERCENT SLOPES	ARVILLA	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
	DIVIDE	No	---	---	---	---	---
	RENSHAW	No	---	---	---	---	---
AwB:							
ARVILLA-SIOUX SANDY LOAMS, 3 TO 6 PERCENT SLOPES	ARVILLA	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
	RENSHAW	No	---	---	---	---	---
	DIVIDE	No	---	---	---	---	---
BaA:							
BARNES LOAM, 1 TO 3 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
BaB:							
BARNES LOAM, 3 TO 6 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
BaC:							
BARNES LOAM, 6 TO 9 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	BUSE	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
BaD:							
BARNES LOAM, 9 TO 12 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	BUSE	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	SVEA	No	---	---	---	---	---
BbB:							
BARNES COBBLY LOAM, 1 TO 6 PERCENT SLOPES	BARNES, COBBLY	No	---	---	---	---	---
	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
BdB:							
BARNES-BUSE LOAMS, 3 TO 6 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	BUSE	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	SVEA	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Renville County, North Dakota

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
BdC:							
BARNES-BUSE LOAMS, 6 TO 9 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	BUSE	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	PARNELL	Yes	depression	3,2B3	YES	NO	YES
	TONKA	Yes	depression	2B3,3	YES	NO	YES
BfA:							
BARNES-CRESBARD LOAMS, 1 TO 3 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	CRESBARD	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	CAVOUR	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
BgB:							
BARNES-HAMERLY LOAMS, 3 TO 6 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	HAMERLY	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	HAMLET	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	BUSE	No	---	---	---	---	---
BhA:							
BARNES-HAMLET-TONKA LOAMS, 1 TO 3 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	HAMERLY	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
BhB:							
BARNES-HAMLET-TONKA LOAMS, 3 TO 6 PERCENT SLOPES	BARNES	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	HAMERLY	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	BUSE	No	---	---	---	---	---
BnD:							
BARNES AND BUSE VERY STONY LOAMS, 3 TO 15 PERCENT SLOPES	BARNES, VERY STONY	No	---	---	---	---	---
	BUSE, VERY STONY	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	HAMLET, VERY STONY	No	---	---	---	---	---
CaA:							
CAVOUR-CRESBARD LOAMS, 1 TO 3 PERCENT SLOPES	CAVOUR	No	---	---	---	---	---
	CRESBARD	No	---	---	---	---	---
	HAMERLY	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	VALLERS	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Co:							
COLVIN SILT LOAM	COLVIN	Yes	flat	2B3	YES	NO	NO
	VALLERS	Yes	flat	2B3	YES	NO	NO
	MARYSLAND	Yes	flat	2B3	YES	NO	NO
	BORUP	Yes	depression	2B3	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Renville County, North Dakota

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Cp:							
COLVIN SOILS, CHANNELED	CHANNEL	---	---	---	---	---	---
	COLVIN	Yes	channel	2B3	YES	NO	NO
	MARYSLAND	Yes	flood plain	2B3	YES	NO	NO
	BORUP	Yes	depression	2B3,3	YES	NO	YES
	VALLERS	Yes	flood plain	2B3	YES	NO	NO
	TONKA	Yes	depression	2B3,3	YES	NO	YES
Cr:							
COLVIN SOILS, VERY WET	COLVIN	Yes	depression	2B3,3	YES	NO	YES
	MARYSLAND	Yes	flat	2B3	YES	NO	NO
	COLVIN, SALINE	Yes	depression	2B3	YES	NO	NO
	VALLERS	Yes	flat	2B3	YES	NO	NO
DdA:							
DIVIDE LOAM, LOAMY SUBSTRATUM, 1 TO 3 PERCENT SLOPES	DIVIDE, LOAMY SUBSTRATUM	No	---	---	---	---	---
	MARYSLAND	Yes	flat	2B3	YES	NO	NO
	RENSHAW	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
EmB:							
EMBDEN SANDY LOAM, 1 TO 6 PERCENT SLOPES	EMBDEN	No	---	---	---	---	---
	SWENODA	No	---	---	---	---	---
	TIFFANY	Yes	depression	2B3,3	YES	NO	YES
	HECLA	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
EoA:							
EMBDEN-TIFFANY FINE SANDY LOAMS, 1 TO 3 PERCENT SLOPES	EMBDEN	No	---	---	---	---	---
	TIFFANY	No	---	---	---	---	---
	SWENODA	No	---	---	---	---	---
	HECLA	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
Fa:							
FARGO SILTY CLAY	FARGO	Yes	lake plain	2B3	YES	NO	NO
	GREAT BEND	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Fb:							
FARGO SILTY CLAY, VERY WET	FARGO, VERY WET	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Fu:							
FULDA SILTY CLAY LOAM	FULDA	Yes	depression	2B3	YES	NO	NO
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Gp:							
GRAVEL PITS	GRAVEL PITS	No	---	---	---	---	---
	ARVILLA	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
GrA:							
GREAT BEND SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	GREAT BEND	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---
	OVERLY	No	---	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
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Renville County, North Dakota

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
HaA:							
HAMERLY LOAM, 1 TO 3 PERCENT SLOPES	HAMERLY	No	---	---	---	---	---
	VALLERS	Yes	flat	2B3	YES	NO	NO
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	BARNES	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
HbA:							
HAMERLY-TONKA LOAMS, 1 TO 3 PERCENT SLOPES	HAMERLY	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	HAMLET	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	VALLERS	Yes	flat	2B3	YES	NO	NO
HhA:							
HAMLET-HAMERLY-TONKA LOAMS, 1 TO 3 PERCENT SLOPES	HAMLET	No	---	---	---	---	---
	HAMERLY	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	VALLERS	Yes	flat	2B3	YES	NO	NO
HmA:							
HAMLET-TONKA LOAMS, 1 TO 3 PERCENT SLOPES	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	HAMERLY	No	---	---	---	---	---
	VALLERS	Yes	flat	2B3	YES	NO	NO
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
HoA:							
HECLA AND LOHNES LOAMY SANDS, 1 TO 3 PERCENT SLOPES	HECLA	No	---	---	---	---	---
	LOHNES	No	---	---	---	---	---
	EMBDEN	No	---	---	---	---	---
	TIFFANY	Yes	depression	2B3,3	YES	NO	YES
	ARVESON	Yes	depression	2B3	YES	NO	NO
	TONKA	Yes	depression	2B3,3	YES	NO	YES
LaA:							
LADELLE SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	LADELLE	No	---	---	---	---	---
	LUDDEN	Yes	flood plain	2B3	YES	NO	NO
	CHANNEL	---	---	---	---	---	---
	VELVA	No	---	---	---	---	---
LoB:							
LOHNES LOAMY SAND, 3 TO 6 PERCENT SLOPES	LOHNES	No	---	---	---	---	---
	HECLA	No	---	---	---	---	---
	HAMAR LS	Yes	depression	2B2	YES	NO	NO
	CLAIRE	No	---	---	---	---	---
Lu:							
LUDDEN SILTY CLAY	LUDDEN	Yes	flood plain	2B3	YES	NO	NO
	CHANNEL	---	---	---	---	---	---
	LADELLE	No	---	---	---	---	---
	LAMOURE	Yes	flood plain	2B3	YES	NO	NO
	RYAN	Yes	drainageway	2B3	YES	NO	NO
	VELVA	No	---	---	---	---	---
Ly:							
LUDDEN SILTY CLAY, VERY WET	LUDDEN, VERY WET	Yes	oxbow	2B3,3,4	YES	YES	YES
	CHANNEL	---	---	---	---	---	---
	SOUTHAM	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
	WATER	Yes	channel	3,2B3	YES	NO	YES

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Lz:							
LUDDEN CLAY, PONDED	LUDDEN, PONDED	Yes	flood plain	4,3,2B3	YES	YES	YES
	CHANNEL	---	---	---	---	---	---
	RIFLE	Yes	fen	4,3,1	NO	YES	YES
	LUDDEN PD	Yes	flood plain	4,2B3	YES	YES	NO
	WATER	Yes	channel	3,2B3	YES	NO	YES
M-W:							
MISCELLANEOUS WATER	MISCELLANEOUS WATER	Yes	depression	3,2B3	YES	NO	YES
Mb:							
MARYSLAND SILT LOAM	MARYSLAND	Yes	flat	2B3	YES	NO	NO
	COLVIN	Yes	flat	2B3	YES	NO	NO
	ARVESON	Yes	flat	2B3	YES	NO	NO
Pa:							
PARNELL SILTY CLAY LOAM	PARNELL	Yes	depression	3,2B3	YES	NO	YES
	TONKA	Yes	depression	3,2B3	YES	NO	YES
	VALLERS	Yes	flat	2B3	YES	NO	NO
RnA:							
RENSHAW LOAM, 1 TO 3 PERCENT SLOPES	RENSHAW	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
	ARVILLA	No	---	---	---	---	---
	DIVIDE	No	---	---	---	---	---
RnB:							
RENSHAW LOAM, 3 TO 6 PERCENT SLOPES	RENSHAW	No	---	---	---	---	---
	SIOUX	No	---	---	---	---	---
	ARVILLA	No	---	---	---	---	---
	DIVIDE	No	---	---	---	---	---
SoB:							
SIOUX LOAM, 1 TO 6 PERCENT SLOPES	SIOUX	No	---	---	---	---	---
	ARVILLA	No	---	---	---	---	---
	RENSHAW	No	---	---	---	---	---
SoD:							
SIOUX LOAM, 6 TO 20 PERCENT SLOPES	SIOUX	No	---	---	---	---	---
	RENSHAW	No	---	---	---	---	---
	ARVILLA	No	---	---	---	---	---
SvA:							
SVEA LOAM, 1 TO 3 PERCENT SLOPES	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
SvB:							
SVEA LOAM, 3 TO 6 PERCENT SLOPES	SVEA	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
SwB:							
SVEA LOAM, CHANNELED, 1 TO 6 PERCENT SLOPES	CHANNEL	---	---	---	---	---	---
	SVEA	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
SyA:							
SVEA LOAM, FANS, 1 TO 3 PERCENT SLOPES	SVEA, FANS	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
	HAMLET	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---

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Renville County, North Dakota

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
SyB:							
SVEA LOAM, FANS, 3 TO 6 PERCENT SLOPES	SVEA, FANS	No	---	---	---	---	---
	HAMLET	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
	BARNES	No	---	---	---	---	---
	PARNELL	Yes	depression	3,2B3	YES	NO	YES
SzA:							
SWENODA FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	SWENODA	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---
	EMBDEN	No	---	---	---	---	---
	HEIMDAL	No	---	---	---	---	---
	EMRICK	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
SzB:							
SWENODA FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	SWENODA	No	---	---	---	---	---
	EMRICK	No	---	---	---	---	---
	HEIMDAL	No	---	---	---	---	---
	EMBDEN	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
Tf:							
TIFFANY FINE SANDY LOAM	TIFFANY	Yes	depression	2B3,3	YES	NO	YES
	WYNDMERE	No	---	---	---	---	---
	EMBDEN	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
To:							
TONKA SILT LOAM	TONKA	Yes	depression	2B3,3	YES	NO	YES
	VALLERS	Yes	flat	2B3	YES	NO	NO
	HAMERLY	No	---	---	---	---	---
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Va:							
VALLERS LOAM	VALLERS	Yes	flat	2B3	YES	NO	NO
	HAMERLY	No	---	---	---	---	---
	BARNES	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	PARNELL	Yes	depression	2B3,3	YES	NO	YES
Vb:							
VELVA LOAM	VELVA	No	---	---	---	---	---
	CHANNEL	---	---	---	---	---	---
	LADELLE	No	---	---	---	---	---
	LUDDEN	Yes	flood plain	2B3	YES	NO	NO
Vd:							
VELVA LOAM, CHANNELED	VELVA	No	---	---	---	---	---
	CHANNEL	---	---	---	---	---	---
	LADELLE	No	---	---	---	---	---
	LUDDEN	Yes	channel	2B3	YES	NO	NO
	TONKA	Yes	depression	3,2B3	YES	NO	YES
W:							
WATER	WATER	Yes	depression	3,2B3	YES	NO	YES
WmA:							
WILLIAMS LOAM, 1 TO 3 PERCENT SLOPES	WILLIAMS	No	---	---	---	---	---
	BOWBELLS	No	---	---	---	---	---
	TONKA	Yes	depression	3,2B3	YES	NO	YES
	ZAHL	No	---	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Renville County, North Dakota

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
WmB:							
WILLIAMS LOAM, 3 TO 6 PERCENT SLOPES	WILLIAMS	No	---	---	---	---	---
	BOWBELLS	No	---	---	---	---	---
	TONKA	Yes	depression	2B3,3	YES	NO	YES
	ZAHL	No	---	---	---	---	---
WyA:							
WYNDMERE FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	WYNDMERE	No	---	---	---	---	---
	TIFFANY	Yes	depression	2B3,3	YES	NO	YES
	ARVESON	Yes	depression	2B3	YES	NO	NO
	TONKA	Yes	depression	3,2B3	YES	NO	YES
ZaD:							
ZAHL-MAX LOAMS, 9 TO 15 PERCENT SLOPES	ZAHL	No	---	---	---	---	---
	MAX	No	---	---	---	---	---
	WILLIAMS	No	---	---	---	---	---
	BOWBELLS	No	---	---	---	---	---
ZaF:							
ZAHL-MAX LOAMS, 15 TO 60 PERCENT SLOPES	ZAHL	No	---	---	---	---	---
	MAX	No	---	---	---	---	---
	WILLIAMS	No	---	---	---	---	---
	BOWBELLS	No	---	---	---	---	---
	SVEA	No	---	---	---	---	---

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use and management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.
Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

1. All Histosols except Folists, or

2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:

   a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or

   b. poorly drained or very poorly drained and have either:

      (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),

      or for other soils

      (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

      (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or

3. Soils that are frequently ponded for long duration or very long duration during the growing season, or

4. Soils that are frequently flooded for long duration or very long duration during the growing season.